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From: Hal R. Yeager, Ph.D.

Direct Dial: 415-774-3203

Re: USSN 10/670,116

MESSAGE: PLEASE SEE ATTACHED.

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W02-SF:5JW1V61405550.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**PATENT RECEIVED**
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JUN 21 2004

Applicant: Rapoport, *et al.*
Serial No.: 10/670,116
Filed: September 23, 2003
For: POSITION ESTIMATION USING A
NETWORK OF GLOBAL-POSITIONING
RECEIVERS
Art Group Unit: 3662
Examiner: Dao L. Phan
Attorney Docket: 07G7-104192

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OFFICIAL

REQUEST TO CORRECT CITATION OF PRIOR ART

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Sir:

This is a request to: (1) delete the Examiner's citation of U.S. Patent No. 6,374,432 to Morris against the application; and (2) ask that the Office consider citing U.S. Patent No. 6,373,432 to Rabinowitz in place of U.S. Patent No. 6,374,432.

BACKGROUND OF THE REQUEST

The claims of above-identified patent application are in the field of global positioning satellite (GPS) systems, currently classified in class/sub-class 342/357.06. On May 14, 2004, the Office issued a Notice of Allowance, which included the citation of five (5) prior art references. One of these prior art citations, U.S. Patent No. 6,374,432 to Morris, relates to portable urinals, classified in class/sub-class 4/476. This citation is clearly unrelated to the claims of the present application, owing to its vastly different subject matter and classification.

To the Undersigned, it appears that the Examiner intended to cite a patent in the GPS field rather than U.S. Patent No. 6,374,432, but that a transcription error occurred that resulted in U.S.

W02-SF:SHY\61418210.1

-1-

U.S. Serial No. 10/670,116

Patent No. 6,374,432 being cited. The Undersigned undertook a search of all U.S. patents which have numbers that are one digit off from that of Patent No. 6,374,432. That search uncovered one patent in the GPS field: U.S. Patent No. 6,373,432 to Rabinowitz, entitled "System Using Leo Satellites for Centimeter-Level Navigation," classified in class/sub-class 342/357.16. As can be seen, the number of this patent is one digit off from that of the Morris patent, and it is in the same class as the present application. Copies of the front pages of Morris patent (6,374,432) and the Rabinowitz patent (6,373,432) are attached herewith.

FORMAL REQUESTS

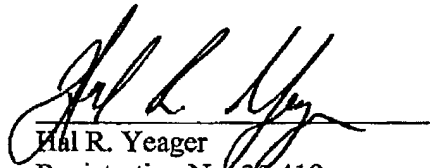
- (1) Applicants respectfully request that the citation of U.S. Patent No. 6,374,432 to Morris be deleted from the record in a manner that prevents it from appearing on the front cover of the issued patent for this application.
- (2) Applicants respectfully request that the Office investigate whether the Examiner had considered and intended to cite U.S. Patent No. 6,373,432 to Rabinowitz in the examination of the case, and, if so, to replace the citation of the Morris patent with a citation to the Rabinowitz patent.

Applicants respectfully urge that at least the first Request be fulfilled, and that the second Request be considered if time permits. Any questions regarding the Requests may be directed to the undersigned.

June 21, 2004

Respectfully submitted,

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US006374432B1

(12) **United States Patent**
Morris

(10) Patent No.: **US 6,374,432 B1**
 (45) Date of Patent: **Apr. 23, 2002**

(54) **PORTABLE URINAL**

(76) Inventor: **Edwin E. Morris, 7111 Dogwood
 Creek La., Dallas, TX (US) 75252**

(*) Notice: Subject to any disclaimer, the term of this
 patent is extended or adjusted under 35
 U.S.C. 154(b) by 0 days.

3,066,311 A * 12/1962 Sharp 4/462
 3,992,727 A * 11/1976 Elkins 4/321 X
 4,883,016 A * 11/1989 Larson 4/449 X

* cited by examiner

Primary Examiner—Robert M. Fetsuga
 (74) *Attorney, Agent, or Firm*—Michael A. O'Neil

(21) Appl. No.: **09/702,243**

(22) Filed: **Oct. 31, 2000**

(51) Int. Cl.⁷ **A47K 11/12**

(52) U.S. Cl. **4/476; 4/144.1**

(58) Field of Search **4/144.1, 321, 323,
 4/449, 459, 461, 462, 463, 476, 477, 599**

(56) **References Cited**

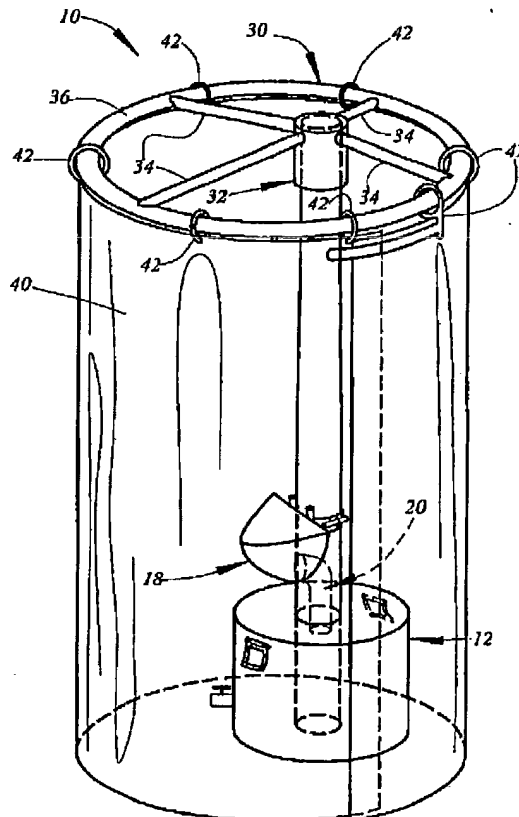
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393,294 A * 11/1888 Carrico 4/462

(57) **ABSTRACT**

A portable urinal includes a receiving container which is secured against accidental overturning. A hollow support member extends upwardly from the receiving container. A urine receiver is mounted on the hollow support member and connected in fluid communication therewith. A curtain support fixture is mounted at the upper end of the support member and in turn supports a privacy curtain which extends entirely around the receiving container, the support member, and the urine receiver.

9 Claims, 3 Drawing Sheets





US006373432B1

(12) **United States Patent**
Rabinowitz et al.

(10) Patent No.: **US 6,373,432 B1**
(45) Date of Patent: **Apr. 16, 2002**

(54) **SYSTEM USING LEO SATELLITES FOR
CENTIMETER-LEVEL NAVIGATION**

(75) Inventors: Matthew Rabinowitz, Palo Alto;
Bradford W. Parkinson, Los Altos;
Clark E. Cohen, Palo Alto; David G.
Lawrence, Mountain View, all of CA
(US)

(73) Assignee: The Board of Trustees of the Leland
Stanford Junior University, Stanford,
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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/625,419

(22) Filed: Jul. 25, 2000

Related U.S. Application Data

(63) Continuation of application No. 09/287,523, filed on Apr. 7,
1999, now abandoned, which is a continuation of application
No. 09/167,520, filed on Oct. 6, 1998, now abandoned,
which is a continuation of application No. 09/045,497, filed
on Mar. 20, 1998, now abandoned.

(60) Provisional application No. 60/041,184, filed on Mar. 21,
1997.

(51) Int. Cl.⁷ G01S 5/02; H04B 7/185

(52) U.S. Cl. 342/357.16; 342/357.04;
342/357.06; 342/3; 342/357.02; 701/213

(58) Field of Search 342/357.01, 357.04,
342/357.06, 357.02, 357.16; 701/213; 455/12.1

(56) **References Cited**

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Rabinowitz et al., "The application of LEOS to Cycle
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matic Carrier-Phase Positioning", Institute of Navigation,
ION97, No. 1, Sep. 1997.

Cohen et al., "Real Time Flight Testing Using Integrity
Beacons for GPS Category III Precision Landing", Naviga-
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1994.

(List continued on next page.)

Primary Examiner—Dao Phan

(74) *Attorney, Agent, or Firm*—Fish & Richardson P.C.

(57) **ABSTRACT**

Disclosed herein is a system for rapidly resolving position
with centimeter-level accuracy for a mobile or stationary
receiver [4]. This is achieved by estimating a set of param-
eters that are related to the integer cycle ambiguities which
arise in tracking the carrier phase of satellite downlinks
[5,6]. In the preferred embodiment, the technique involves a
navigation receiver [4] simultaneously tracking transmis-
sions [6] from Low Earth Orbit Satellites (LEOS) [2]
together with transmissions [5] from GPS navigation satel-
lites [1]. The rapid change in the line-of-sight vectors from
the receiver [4] to the LEO signal sources [2], due to the
orbital motion of the LEOS, enables the resolution with
integrity of the integer cycle ambiguities of the GPS signals
[5] as well as parameters related to the integer cycle ambi-
guity on the LEOS signals [6]. These parameters, once
identified, enable real-time centimeter-level positioning of
the receiver [4]. In order to achieve high-precision position
estimates without the use of specialized electronics such as
atomic clocks, the technique accounts for instabilities in the
crystal oscillators driving the satellite transmitters, as well as
those in the reference [3] and user [4] receivers. In addition,
the algorithm accommodates as well as to LEOS that receive
signals from ground-based transmitters, then re-transmit
frequency-converted signals to the ground.

19 Claims, 15 Drawing Sheets

